Locating Patterns of Earthquake and Volcano Distribution

Problem

What is the pattern of earthquake and volcano distribution worldwide?

Materials *(per student)*

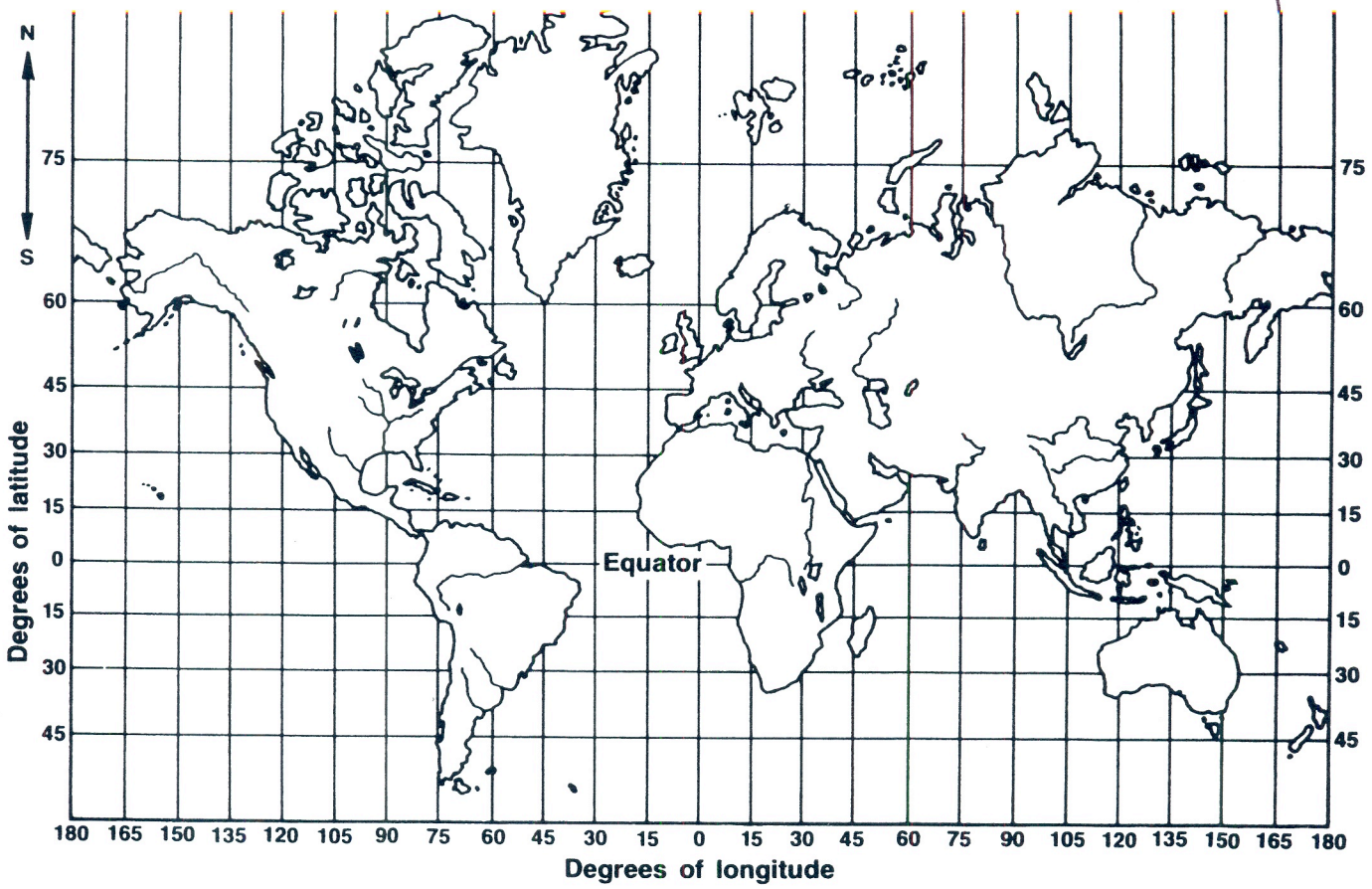
World map showing latitude and longitude
4 pencils of different colors

Procedure

1. Using the information in the table on earthquakes, plot the location of each earthquake on the map on the following page. With a colored pencil, label each earthquake with the letter E in a circle.
2. Using the information in the table on volcanoes, plot the location of each volcano. With another pencil, label each volcano with the letter V in a circle.
3. With another pencil, lightly shade the areas in which earthquakes are found.
4. With another pencil, lightly shade the areas in which volcanoes are found.

Earthquakes	
Longitude	**Latitude**
120°W	40°N
110°E	5°S
77°W	4°S
88°E	23°N
121°E	14°S
34°E	7°N
74°W	44°N
70°W	30°S
10°E	45°N
85°W	13°N
125°E	23°N
30°E	35°N
140°E	35°N
12°E	46°N
75°E	28°N
150°W	61°N
68°W	47°S

Volcanoes	
Longitude	**Latitude**
150°W	60°N
70°W	35°S
120°W	45°N
61°W	15°N
105°W	20°N
75°W	0°
122°W	40°N
30°E	40°N
60°E	30°N
160°E	55°N
37°E	3°S
145°E	40°N
120°E	10°S
14°E	41°N
105°E	5°S
35°E	15°N
70°W	30°S



1. Are earthquakes scattered randomly over the surface of the earth or are they concentrated in definite zones? _____

_____

2. Are volcanoes scattered randomly or concentrated in definite zones? _____

_____

3. Are most earthquakes and volcanoes located near the edges or near the center of continents? _____

_____

4. Are there any active volcanoes located near your home? _____

Has an earthquake occurred near your home? _____

Conclusions

1. Describe any patterns you observe in the distribution of earthquakes and volcanoes.

2. What relationship exists between the locations of earthquakes and of volcanoes?